

## Patent claims

1. Method for switching off an echo compensation for a useful data connection in a packet network (IPNET), should the packet delay time  
5 be reduced, in which
- a threshold value is used for the useful data transmission time or the runtime of the useful data that represents a lower limit for switching off the echo compensation,
  - the useful data transmission time of the changed useful data  
10 connection is triggered on a change to the useful data connection,
  - if echo compensation is switched on a check is performed to determine whether or not the useful data transmission time of the changed useful data connection falls below the threshold value, and
  - the switching off of the echo compensation is activated by means  
15 of a control device (MGC) and a gateway (MG) if the useful data transmission time falls below the threshold value, in which case
  - the threshold value for the useful data transmission time which represents a lower limit for switching on the echo compensation is sent from the control device (MGC) to the gateway (MG),
  - 20 -- when the gateway (MG) changes the useful data connection, the useful data transmission time of the changed useful data connection is determined,
  - if echo compensation is switched on, the gateway (MG) checks whether or not the useful data transmission time of the changed  
25 useful data connection falls below the threshold value,
  - the gateway (MG) informs the control device (MGC) that the useful data transmission time falls below the threshold value (PDTH), and
  - the control device (MGC) activates the switching off of the echo compensation on receiving information that the useful data  
30 transmission is falling below the threshold value.
2. Method according to Claim 1,  
characterized in that

- from the control device (MGC) to the gateway (MG), as part of the transfer of the threshold value by means of the notification request instruction of the MGCP protocol, the gateway (MG) is made to inform the control device (MGC) when there is a change in the useful data connection which causes it to fall below the threshold value.

3. Method according to Claim 1 or 2, characterized in that

- the threshold value is sent by means of an event newly introduced for the MGCP protocol in the RTP package of the MGCP protocol.

4. Method according to one of the preceding claims, characterized in that

- useful data transmission times are determined by using the round trips of the messages.

5. Method according to one of the preceding Claims 1 to 4, characterized in that

- the echo compensation is switched off by the control device (MGC), on receipt of information that the useful data transmission has fallen below the threshold value while the control device (MGC) switches off the echo compensation via the gateway (MG) by sending the MGCP message MDCX to the gateway (MG).

6. Method according to one of the preceding claims, characterized in that,

- in case an echo compensation is switched off in the service area of a control entity, an NRM message is sent to a control entity for switching off the echo compensation, and  
- by sending the NRM message, the control entity switches off an echo compensation.

7. Method according to one of the preceding claims, characterized in that

- the packet network (IPNET) is an IP network or an ATM (Asynchronous Transfer Mode) network.

8. Gateway (MG) for carrying out a method according to one of the preceding claims

5 - with means to determine the useful data transmission times in the packet network (IPNET) and

- with a program structure to compare the determined useful data transmission times with a threshold value which represents a lower limit for switching on the echo compensation.

10 9. Gateway (MG) according to claim 8,

- with means to switch off an echo compensation.